OFFICIAL AMENDMENT

Remarks

The applicants request entry of the present amendments to the claims as placing the application in condition for allowance or reducing the issues for consideration on appeal. Claims 1, 4, 6, 9, 10 and 12 have been amended. Claims 13 and 15 have been canceled. New claims 16-24 have been added. Support for the amendments and new claims herein can be found throughout the specification, for example, at paragraphs 29, 30, 31, 34 and 47 of the applicant's Published Patent Application No. 2003/0023669. Currently, 20 claims, including three independent claims, are pending. As such, no additional fees are believed to be required.

Claims 1, 3-5, 8-12, 14 and 15 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 6,006,264 to Colby et al. in view of U.S. Patent No. 6,286,038 to Reichmeyer. Claims 6 and 13 stand rejected under § 103 as being unpatentable over Colby et al. in view of the applicants' admitted prior art.

Interview Summary

On August 01, 2006, Thomas Lees on behalf of the applicants conducted a telephone interview with Examiner Phillips. No demonstrations were utilized. Additionally, no exhibits or proposed amendments were transmitted to the Examiner. Claim 1 was discussed in general terms. Additionally, the art of record including the Colby et al. reference was discussed. Specifically, Colby was discussed with regard to the Content Server Database and the Intelligent Content Probe taught on Col. 6, line 35 through Col. 7. No agreements were reached between the parties.

35 U.S.C. §103

According to the M.P.E.P. §706.02(j), to establish a *prima facie* case of obviousness, the prior art reference must teach or suggest all the claim limitations. It is the applicants' position that a *prima facie* case of obviousness has not been established for claim 1, as amended herein, because the cited references, even when combined, fail to teach or suggest all of the limitations of claim 1. Claim 1, as amended herein, recites in part:

> storing a configuration file in a local memory of each one of said plurality of servers, each of said configuration files containing parameters including variables pertaining to its corresponding one of said plurality of servers to be applied for configuring a load balancing scheme for said plurality of servers ... configuring said load balancer to dispatch client requests among said plurality of servers based on a load balancing algorithm defined by said parameters including said variables obtained from said configuration files.

Remaining independent claims 10 and 12 recite similar limitations.

Colby teaches with reference to Fig. 2, a content-aware flow switch 110 that includes, among other components, a Content Server Database (CSD) and an Intelligent Content Probe (ICP). The Content Server Database maintains several databases containing information about content flow characteristics, content locality, and the location of and the load on associated servers. A first database stores *content rules that are defined by the system administrator and which indicate how the flow switch 110 should handle requests for content*. (See for example, Colby Col. 6, lines 45-48).

A second database stores content records that are derived from the content rules, e.g., associated IP addresses, URL information, protocol information, layer 4 port numbers, QoS indicators, the load balance algorithm to use when accessing the content and pointers to associated server records identifying servers containing the particular content. A third database stores server records, e.g., the server's IP address, protocol, a port of the server through which the server can be accessed by the flow switch 110, an indication of whether the server is local or remote with respect to the flow switch 110, and load metrics indicating the load on the server. (See for example, Colby Col. 6, lines 50-63).

The Intelligent Content Probe is a lightweight HTTP client whose job is to populate the Content Server Database with server and content information by probing servers for *specific content that is not found in the Content Server Database during a flow setup*, e.g., to locate specific content that is not already stored in the Content Server Database, to determine the characteristics of known content such as its size, to determine relationships between different pieces of content, and to monitor the health of the servers. Intelligent Content Probes on various flow switches communicate with each

other to periodically send local server load and content information to neighboring content-aware flow switches. (See for example, Colby Col. 7, lines 4-14).

In Colby, the Intelligent Content Probe is dispatched to attempt to identify the missing information (specific content) required by the content records of the Content Server Database to implement the *system administrator established* content rules that indicate how the flow switch 110 should handle requests for content. That is, the network administrator defines the required variables, which are represented by the content records of the Content Server Database. The Intelligent Content Probe obtains and returns the particular current *values* of the network administrator defined variables so that the flow switch can implement the network administrator directed load balancing scheme.

Moreover, the Intelligent Content Probe taught in Colby does not read or return configuration files from each of the plurality of servers. Rather, in Colby, the Content Server Database contains data records that define system administrator established content rules that indicate how the flow switch 110 should handle requests for content. The Intelligent Content Probe gathers the specific information it needs, presumably, by polling the specific features of specific servers whose information is not already in the Content Server Database. If the Content Server Database contains all of the necessary information, e.g., where a network administrator defines the variables of the load balancing scheme and knows the information necessary to fill in the values of those variables with current server information, the Intelligent Content Probe need not visit or poll the corresponding server(s).

Reichmeyer discloses several methods of loading a configuration file into a network device. For example, Reichmeyer teaches that if the installation environment is known at manufacture and shipping, a network device may be preconfigured with all relevant configuration parameters, including network addresses, protocol parameters, etc. Alternatively, a system administrator may manually configure all necessary configuration parameters on-site. Still further, a system administrator may create a configuration remotely from the device and install the configuration file, e.g., on a flash memory of the device. (See for example, Reichmeyer Col. 3, lines 6-29). However, as taught in

Reichmeyer, the various configuration methods are utilized to configure the device to which the configuration file pertains.

As claimed in claim 1 of present application, a configuration file is stored in a local memory of each one of the plurality of servers. Each of the configuration files contains parameters including variables pertaining to its corresponding one of the plurality of servers to be applied for configuring a load balancing scheme for the plurality of servers. The load balancer is configured to obtain these configuration files and dispatch client requests among the plurality of servers based on a load balancing algorithm defined by the parameters including the variables obtained from these configuration files.

The load balancer of the present invention is not specifically constrained as taught in Colby, to search particular servers for predefined information required to implement *network administrator defined* content rules. Moreover, the configuration files stored in a local memory of each server are to configure the load balancing algorithm of the load balancer, not the servers themselves. This aspect of the claimed invention is advantageous because it eliminates the need for an operator of the load balancer to enter this information and further the operator of the load balancer does not need in-depth knowledge in order to properly configure the load balancer. (See for example, paragraph 30 of the '669 publication of the subject application).

Accordingly, it is submitted that Colby et al. in view of Reichmeyer, whether taken singly or in combination, do not disclose, teach or suggest the subject matter of claims 1, 3-5, 8-12, 14 and 15 as amended herein. In view of the amendments and clarifying comments, the applicants respectfully request that the Examiner withdraw these rejections under 35 U.S.C. §103.

With regard to claim 4 (and new claims 17 and 22), neither Colby nor Reichmeyer teach or suggest parameters provided in at least one configuration file having content based routing rules, where a load balancer is configured to dispatch client requests among a plurality of servers based on a

load balancing algorithm defined by the parameters including the variables obtained from the configuration files.

As claimed, the content based routing rules are provided in a configuration file on a server. As such, the process of defining the load balancing algorithm(s) may be largely automated. However, as noted above, in Colby, the system administrator is responsible for constructing the appropriate content based rules, and for entering the rules into the Content Server Database. (See for example, Colby Col. 6, lines 45-48). In Reichmeyer, there is no teaching or suggestion of content based rules for configuring a load balancer provided in a configuration file.

With specific reference to claim 14 (and new claims 19 and 23), neither Colby nor Reichmeyer teach or suggest initializing the load balancer by manually inputting the address information of each one of the plurality of servers, polling each one of the servers for their configuration file; validating each of the configuration files; and configuring the load balancing algorithm based on said parameters in the configuration files.

Claims 6 and 13 stand rejected under § 103 as being unpatentable over Colby et al. in view of applicants' admitted prior art. Claim 6 depends from claim 1, which applicants believe is patentable over the art of record as set out in greater detail herein. Claim 13 is canceled herein. As such, the applicants respectfully request that the Examiner withdraw the rejection of these claims under § 103.

New Claims

Each of the newly added claims depend from a base claim that the applicants believe is in condition for allowance. As such, no additional searching should be required. Moreover, the applicants assert that no new matter has been added.

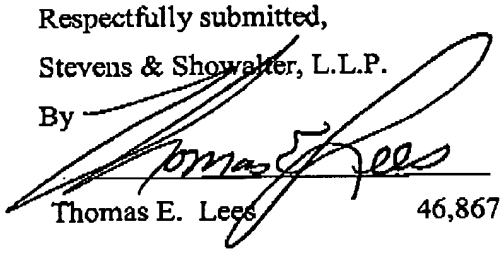
With specific reference to claims 16, 20 and 24, neither Colby nor Reichmeyer teach or suggest storing configuration files provided by a server manufacturer where the configuration files comprise parameters and variables to be applied for configuring a load balancing scheme for a plurality of

servers. As noted in greater detail herein, Colby is silent as to reading configuration files provided by a server manufacturer. Reichmeyer does teach manufacturer configuration files provided on devices. However, the configuration files pertain to the necessary information to configure the device itself. There is no teaching or suggestion in Reichmeyer of a configuration file stored on a server, where the configuration file contains parameters including variables to be applied for configuring a load balancing scheme for a plurality of servers.

Conclusion

For all of the above reasons, the applicants respectfully submit that the above claims recite allowable subject matter. The Examiner is encouraged to contact the undersigned to resolve efficiently any formal matters or to discuss any aspects of the application or of this response. Otherwise, early notification of allowable subject matter is respectfully solicited.

Respectfully submitted,
Stevens & Showalter, L.L.P.
By



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